

Fig. 1
Prior Art

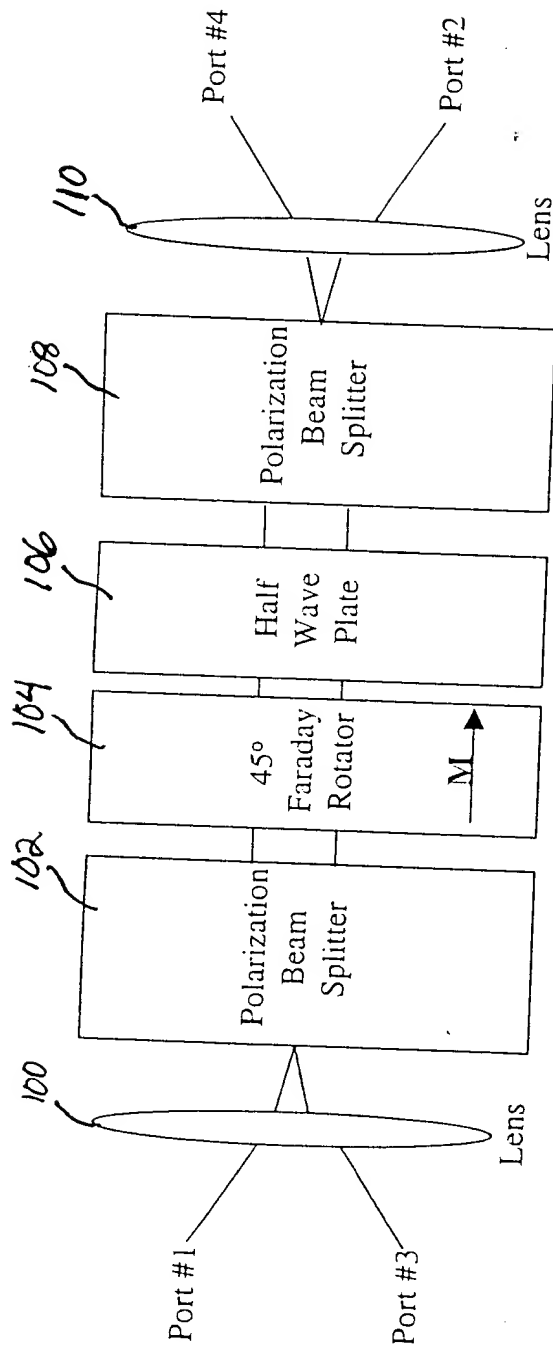


Fig. 2
Prior Art

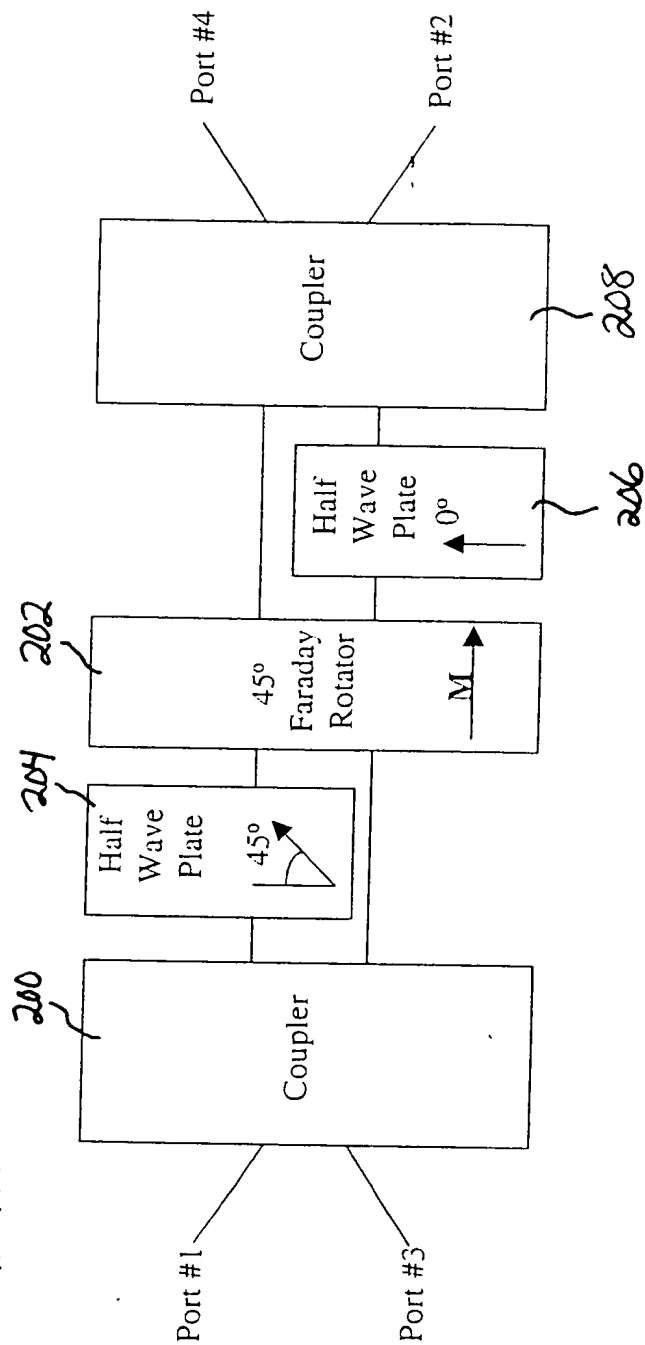


Fig. 3
Prior Art

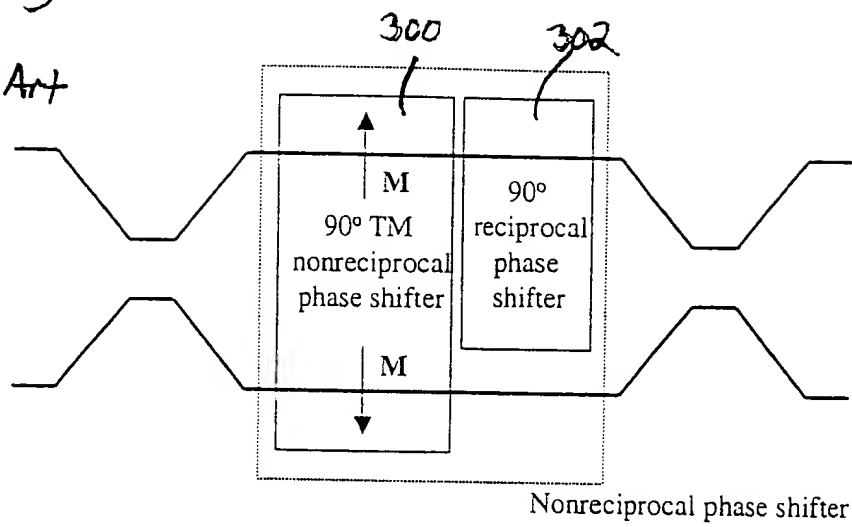
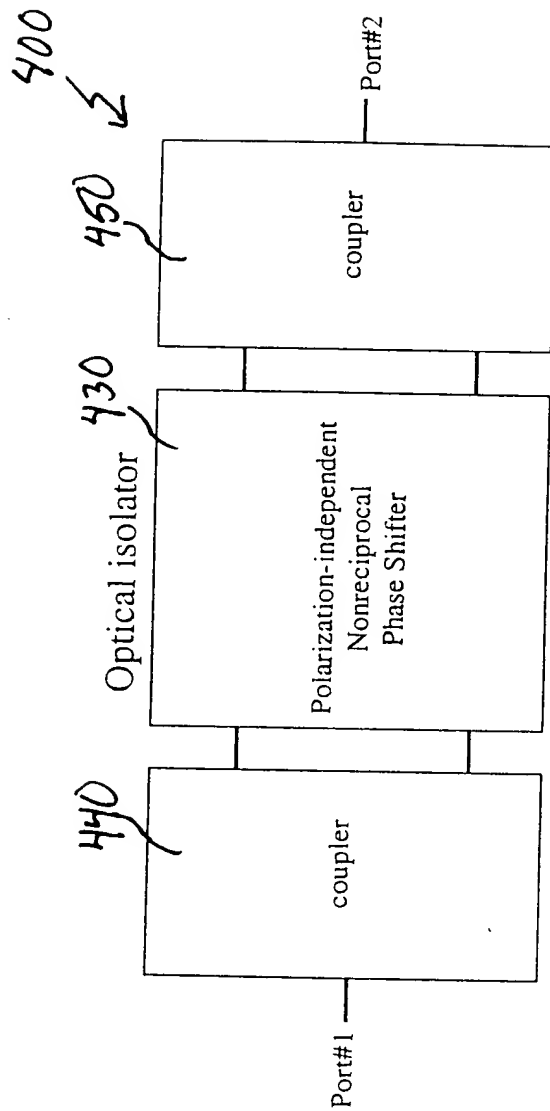


Fig. 4A



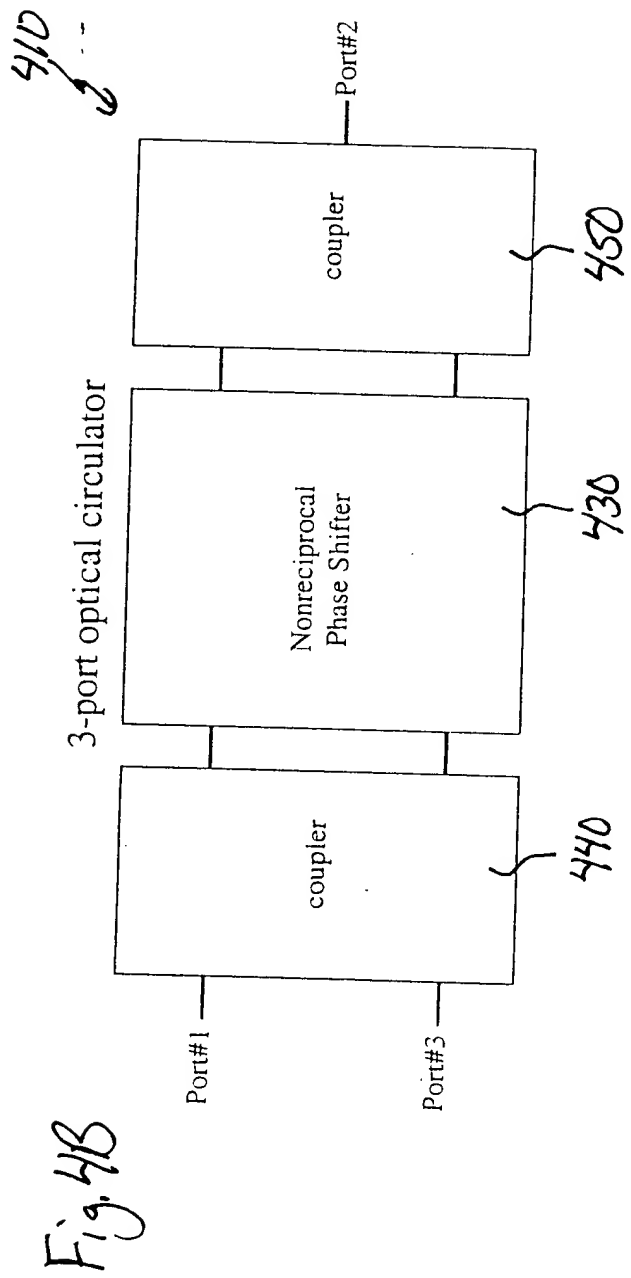


Fig. 4C

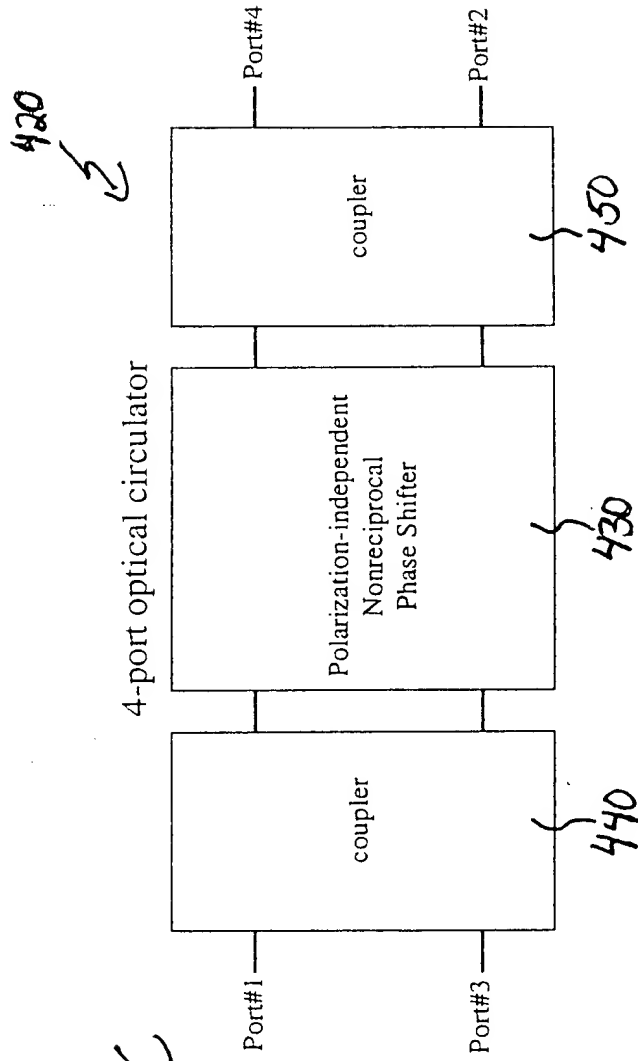


Fig. 5A

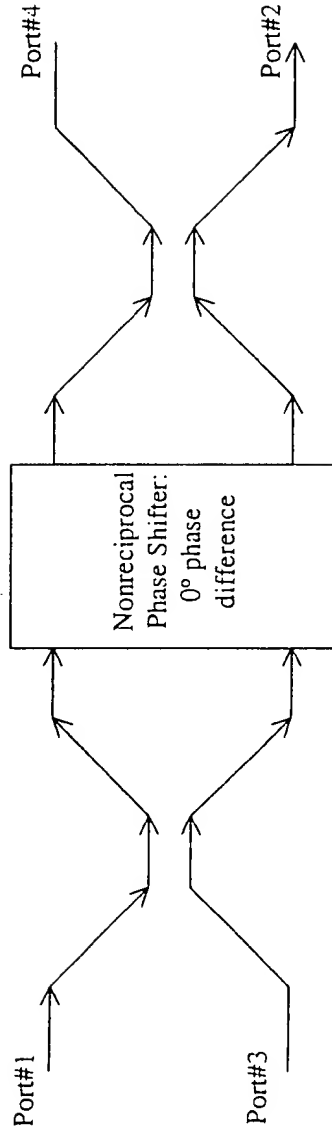


Fig. 5B

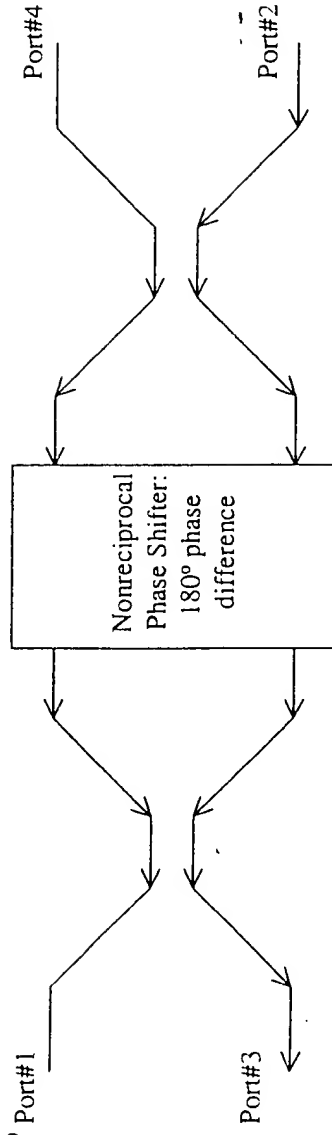
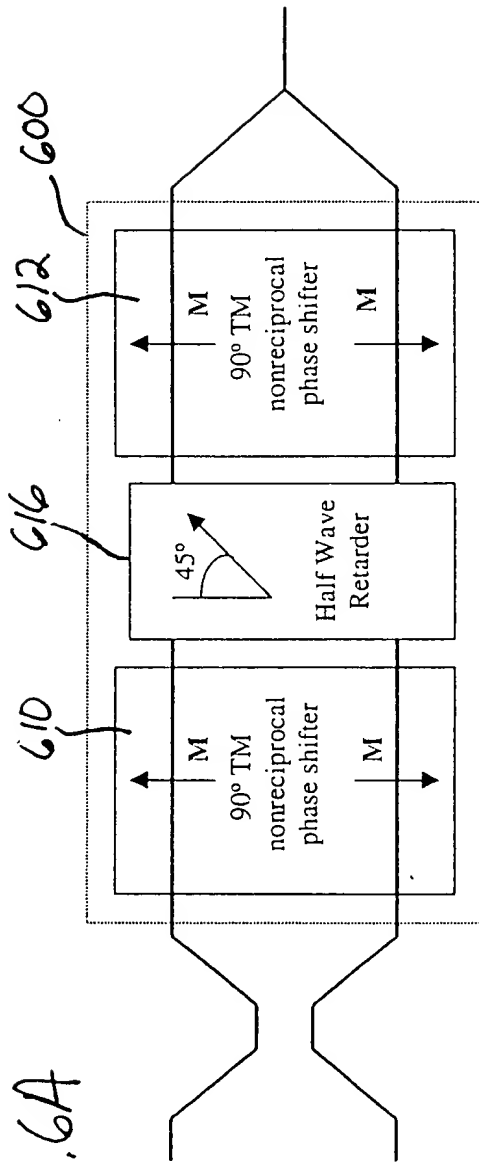


Fig. 6A



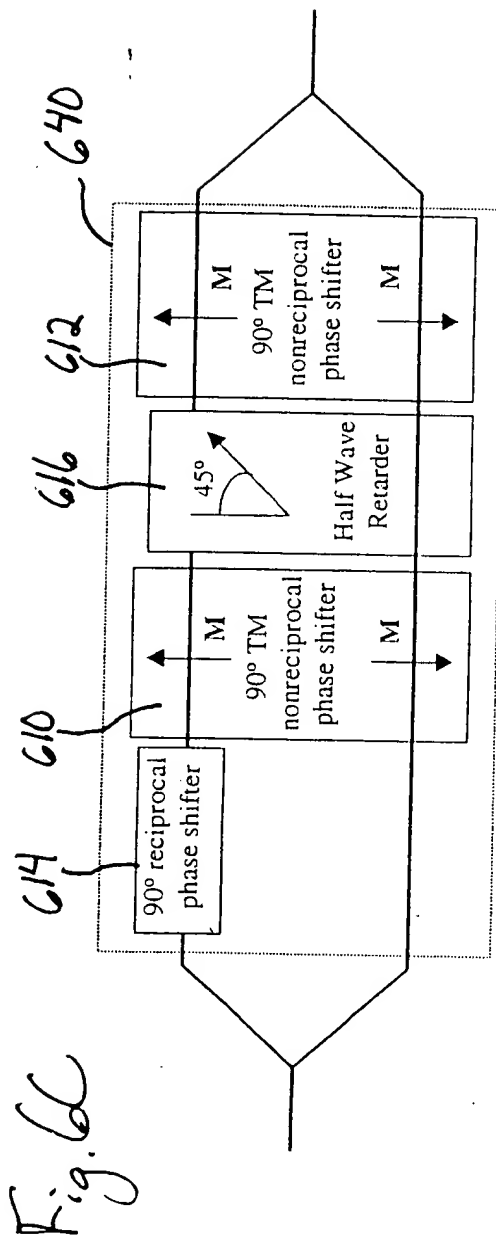
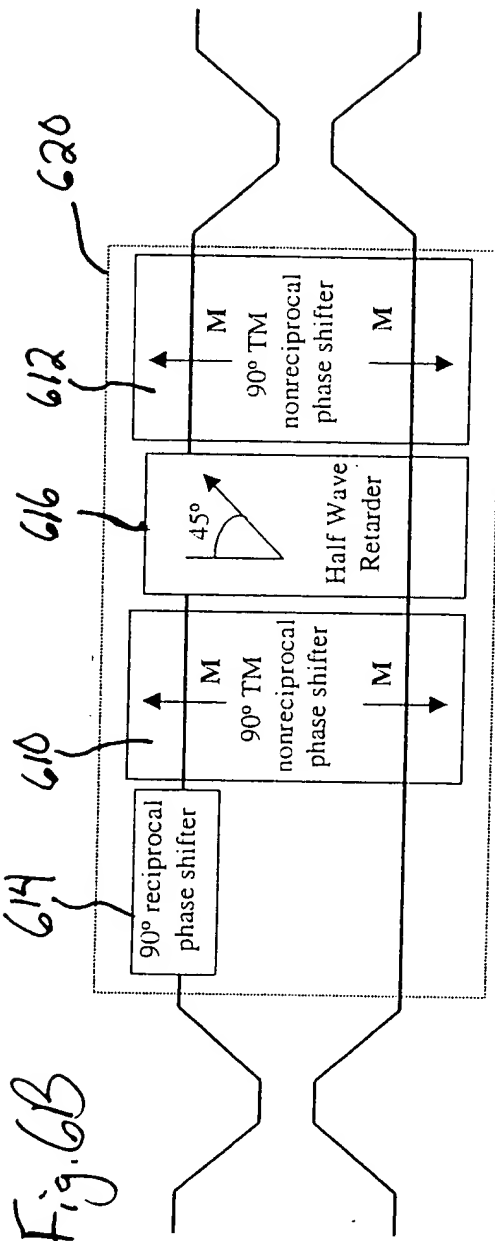
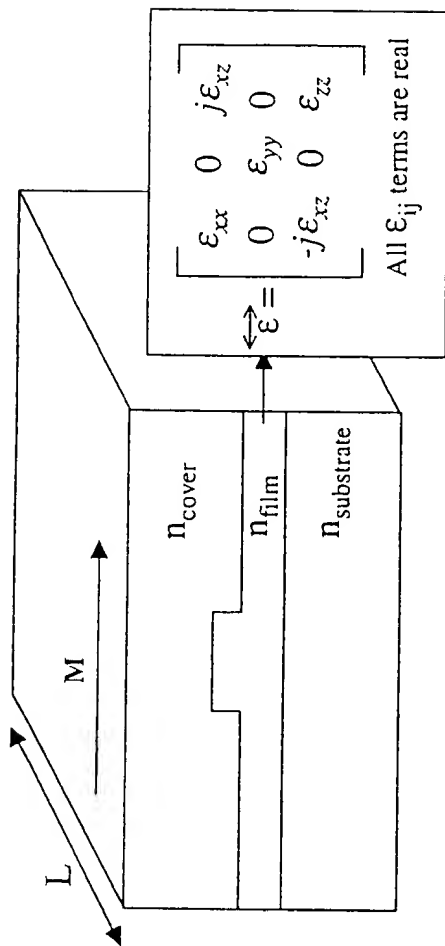


Fig. 7



E_x, E_z : electric field components
 ω : optical frequency
 ϵ_0 : dielectric constant in free space
 N : power normalization factor

$$\delta\beta = 2\Delta\beta = j \frac{2\omega\epsilon_0}{N} \iint E_x^* \epsilon_{xz} E_z dx dy$$

Choose: $\delta\beta \cdot L = 90^\circ$

Fig. 8

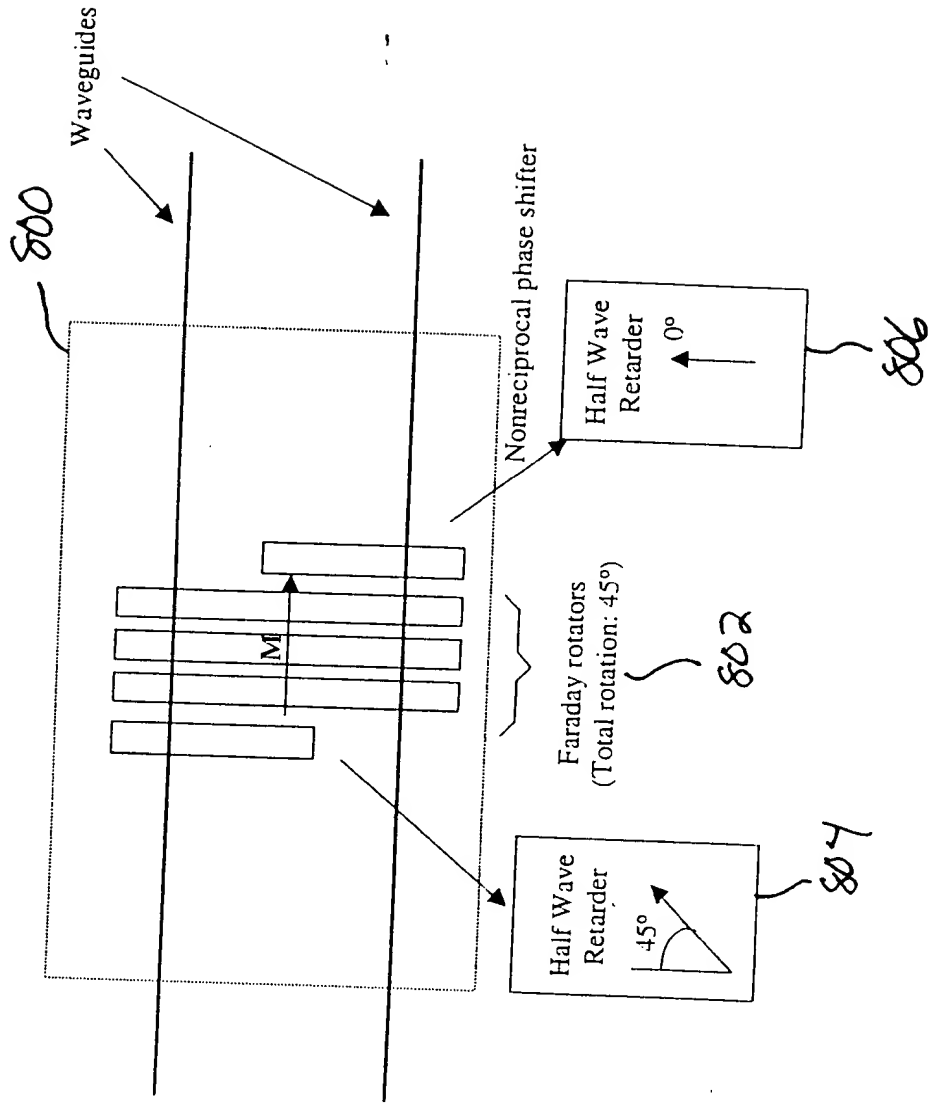


Fig. 9

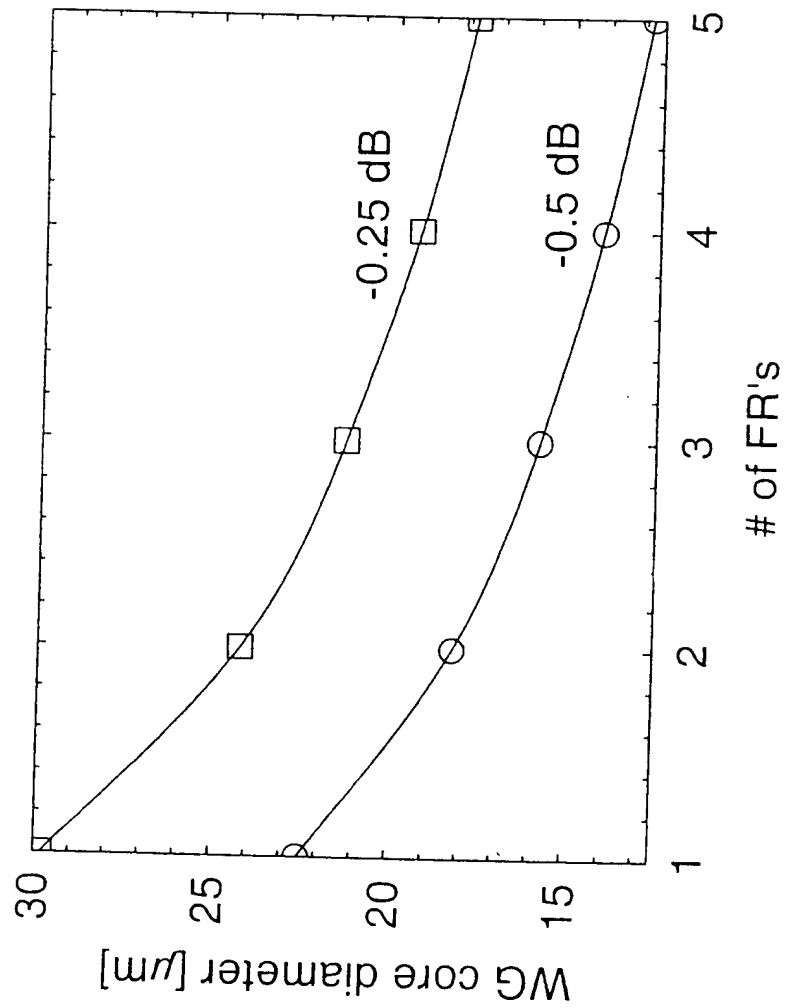


Fig. 10

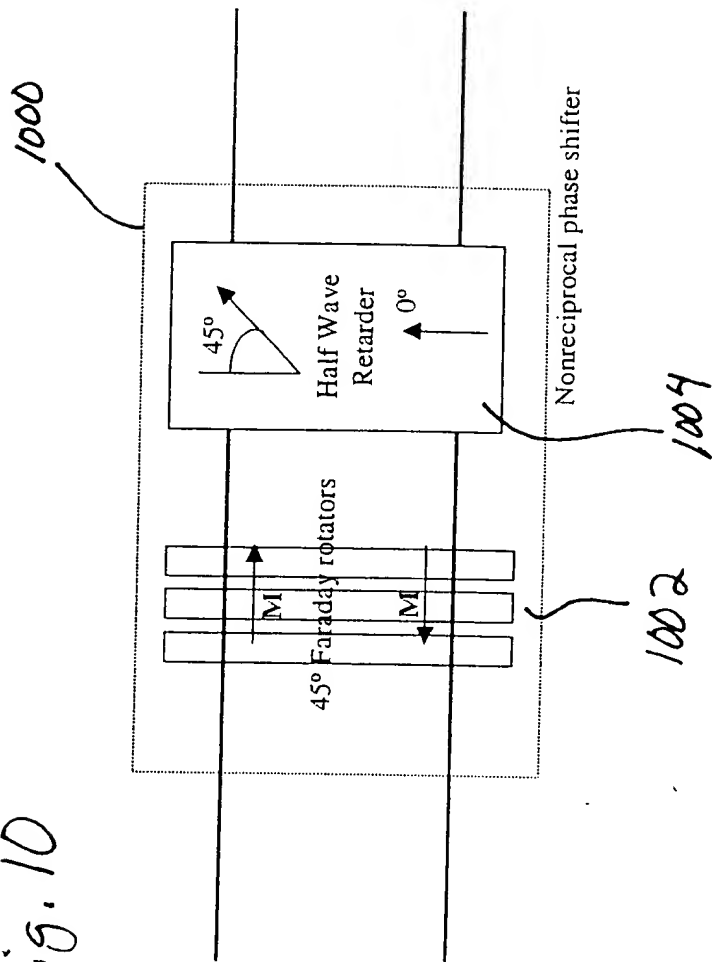


Fig. 11A

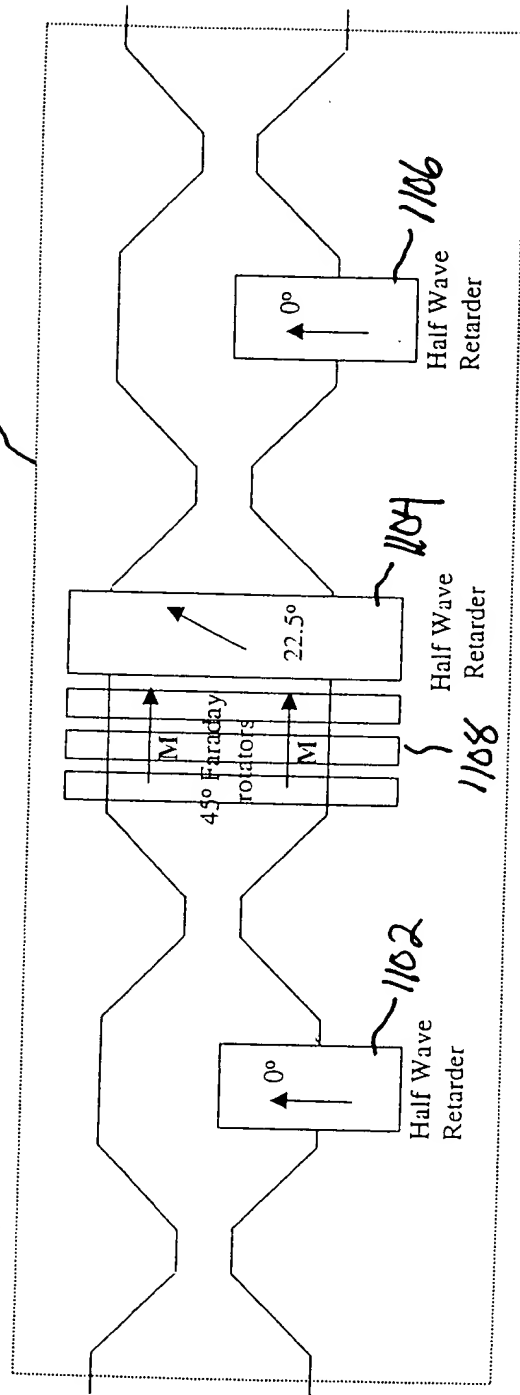


Fig. 11B

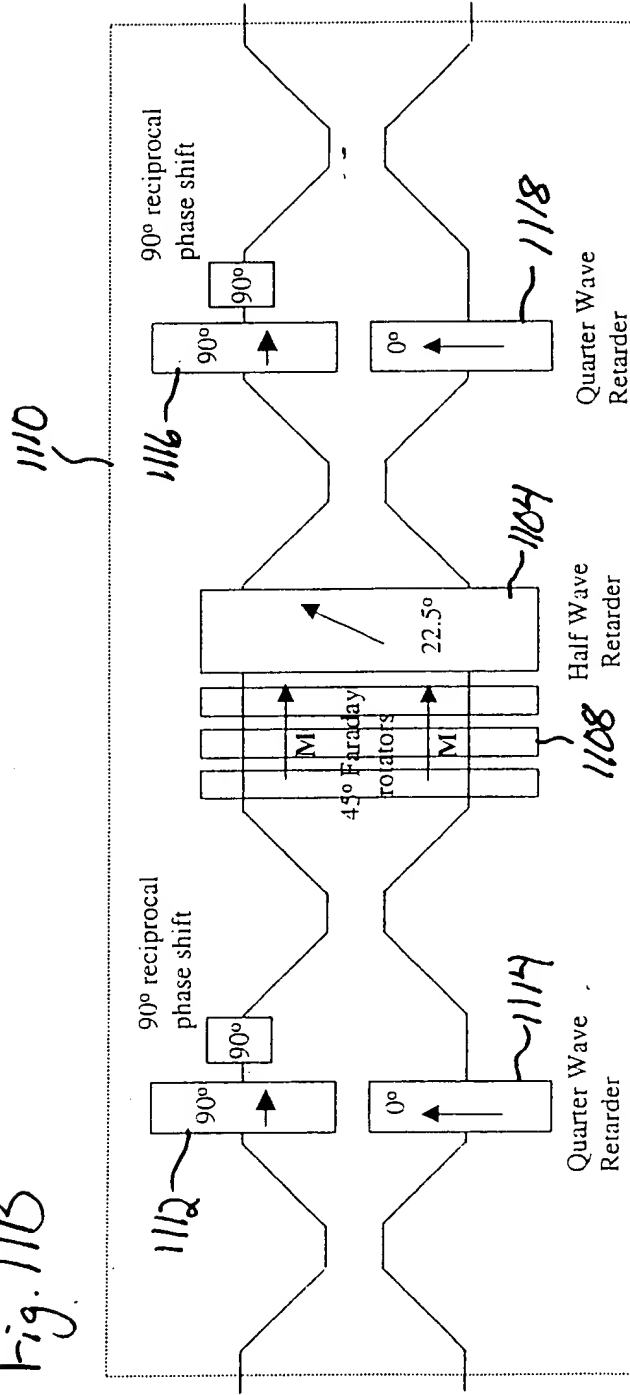


Fig. 12A

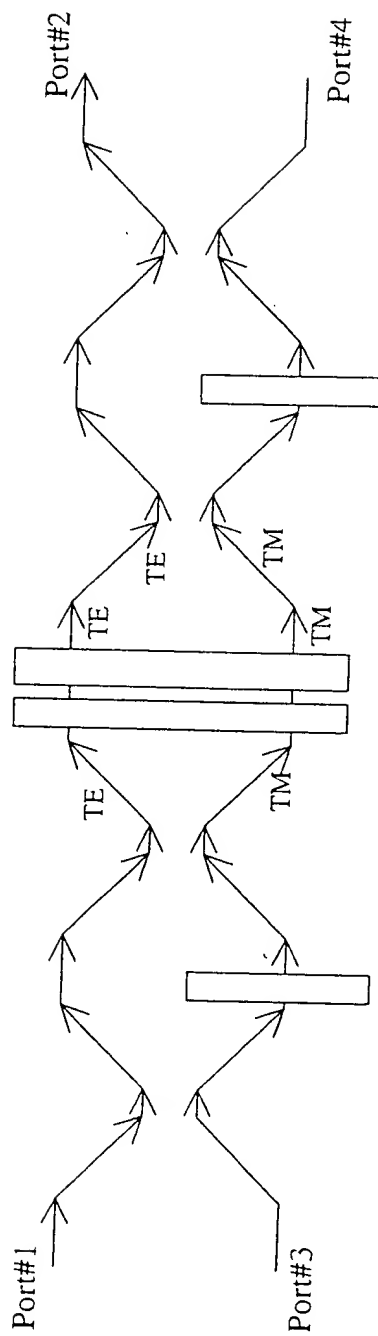


Fig. 12B

